#### COMPHIBGRU THREE INSTRUCTION 3120.6A

Subj: STANDARD OPERATING PROCEDURES FOR COMPHIBGRU THREE 10 and 11 METER RIGID HULL INFLATABLE BOATS (RHIB)

- Ref: (a) OPNAVINST 3120.32, Standard Organization and Regulations of the U.S. Navy (SORM)
  - (b) SECNAVINST 3300.2A, DON Antiterrorism/Force Protection (AT/FP) Program
  - (c) OPNAVINST 4790.4B
  - (d) OPNAVINST 5100.19, Navy Safety Precautions For Forces Afloat
  - (e) Naval Ship's Technical Manual Chapter 583 (Boats and Small Craft)
  - (f) COMDTINST M16672.2, Navigation Rules
  - (q) SW-300 Clearing of Live Ammunition From Guns
- Encl: (1) Operating Restrictions
  - (2) Pre/Post Operational Procedures
  - (3) Passenger Brief
  - (4) Weapons and Ammunition
  - (5) Securing RHIB
  - (6) Shipboard Launch and Recovery
  - (7) Towing Procedures
  - (8) Refueling
  - (9) Acceptance Report of Force Protection RHIB
  - (10) Spare Parts Deployment Pack-Up Kit (PUK)
  - (11) Material Maintenance
- 1. <u>Purpose</u>. To establish and promulgate Standard Operating Procedure (SOP) for COMPHIBGRU THREE Rigid Hull Inflatable Boat (RHIB), assigned to deploying units for force protection.
- 2. Cancellation. COMPHIBGRUTHREEINST 3120.6.
- 3. <u>Discussion</u>. The safe and proper operation of RHIB, as with any combatant craft, is of paramount importance. It is possible a combat situation may dictate deviation of SOP to survive imminent destruction; however, these situations are very rare. The SOP establishes the baseline for maximum RHIB survivability.

Information contained in the SOP, should always be considered before taking action. The enclosed SOP has been developed using references (a) through (g), and from lessons learned by previous deployed RHIB. Proper utilization of these procedures will lead to safe and effective employment of the RHIB. Make it a habit to review the SOP before each RHIB evolution. Talk about their content with your boat crews and debrief SOP as part of your post-operational routine. Your input and review will ensure this document remains a living and useful tool for those who follow.

## 3. Action

- a. All RHIB crewmembers shall thoroughly familiarize themselves with RHIB SOP. Applicable operating procedures and enclosures contained in this instruction, shall be reviewed prior to conducting training or before an actual mission. Boat coxswains and boat officers are charged with the responsibility of ensuring compliance with applicable references and enclosures. The Commanding officer's Standing Orders and Night Orders should include specific RHIB operating parameters and responsibilities beyond those listed in this instruction and should be reviewed on a regular basis too.
- b. Enclosure (9) shall be used and submitted when a ship receives a RHIB from COMPHIBGRU THREE. A ship assigned a RHIB for an extended deployment (three-six months) will be responsible for submitting an IMA or depot level work request for hull, electrical, and mechanical maintenance on their assigned RHIB approximately one month prior to return to home port. A specific work request shall be submitted for any repairs that are beyond ship's force capabilities.
- 4. <u>Changes</u>. All custodian ships are encouraged to submit change recommendation to this instruction by message or through lessons learned (safety, operational, administrative, and logistic) in a post-deployment report.

P. W. D. MORFORD Chief of Staff Acting

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List 1-7

# Operating Restrictions

- 1. <u>Purpose</u>. To establish operating restrictions and to provide guidance to minimize the chance of injury or accidents during RHIB operations.
- 2. <u>General</u>. Maneuvering and negotiating the craft may impose potential hazards to the physical-well being of the crew and passengers, because of the high performance of the RHIB.

# 3. Policy.

- a. An operating log shall be maintained and include all operating and maintenance history of each RHIB.
  - b. Craft shall NOT exceed the following engine speeds.

	SUSTAINED RPM	MAXIMUM RPM
10 METER RHIB	2400	2600
11 METER RHIB	2400	2600

4. RHIB shall NOT be operated in combined seas above 10 feet and winds in excess of 35 knots for training or normal operations as per reference (e). To accomplishment tasking essential to mission accomplishment, a waiver of this requirement may be granted in writing by PHIBRON Commanders. ORM shall always be analyzed prior to any RHIB operation.

#### CAUTION

Maximum operating speeds depends on environmental conditions. These guidelines should be taken into consideration while operating RHIB.

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WIND	SPEED	7-10 KTS	11-16 KTS	17-21 KTS	
WAVE HEIGHT		2-3 FT	3.5-5 FT	6-8 FT	
MAX Boat	SPEED,	35KTS	18+KTS	12+KTS	

- 5. Maximum payload is limited to 5000 lbs, which includes personnel, full fuel, and craft equipment.
- 6. Typical mission load plan for the RHIB is three crewmen and eight personnel. Ensure combined weight of the RHIB does not exceed the weight listed above.
- 7. Maximum hoisting weight for the 10 METER RHIB is 18,000 lbs and maximum hoisting weight for the 11 METER RHIB is 16,500 lbs.
- 8. Operations shall not be planned or undertaken when there is a possibility of running out of fuel. Operations will be planned to include a fuel reserve of at least 20 percent.
- 9. Beaching RHIB or entering the surf zone is prohibited.
- 10. At no time will a craft get underway, including routine launch and recovery, without a qualified coxswain and a qualified engineer onboard.
- 11. In cases of restricted visibility, craft shall proceed at a safe speed, commensurate with the visibility that will allow for maneuvering to avoid navigation hazards. If mission allows, navigation lights, radar, and a forward lookout should be posted to enhance safe navigation. The First Lieutenant should determine whether visibility is restricted, warranting cancellation of RHIB operations prior to launch. If visibility deteriorates while underway, the boat officer or coxswain will determine whether to cancel RHIB operations.

# Pre/Post Operational Checks

- 1. <u>Purpose</u>. To establish guidelines for RHIB Pre/post operational checks.
- 2. <u>Discussion</u>. RHIB operational checklists are vital to mission readiness by ensuring all applicable safety procedures, boat equipment, and maintenance checks are accomplished before and after operations. The following RHIB operational checklists are enclosed:
  - a. Pre-underway Checklist
  - b. Engineering Pre-underway Checklist
  - c. Trailer Checklist
  - d. Engineering Securing Checklist
  - e. Securing Checklist

# RHIB Pre-Underway Checklist

One hour prior to getting underway:	
$\square$ Muster boat crew, brief personnel on the following:	
$\square$ Mission Overview/Safety Precaution	
$\square$ Specific duties	
☐ Begin engine pre-op checklist.	
$\square$ Lay out and check the following navigation equipment:	
$\square$ All necessary charts	
☐ Binoculars	
$\square$ Life vest as applicable	
□ Watch	
$\square$ Tide and current tables	
$\square$ Visually inspect the following and correct deficiencies	as
necessary:	
☐ Casualty steering gear	
□ Bilge	
☐ Gear adrift	
☐ Bilge pump operation	
☐ Manual bilge pump	
☐ Bilge plug installed	
☐ Anchor/Anchor line	
☐ Mooring lines (2)	
□ Fog Horn	
☐ Flare Kit	
☐ Oars (4)	
☐ First Aid Kit	
$\square$ Coordinate frequencies and call signs with ship. $\square$ Ensign on board.	
☐ Towing pennant.	
☐ Lifting slings	
☐ Energize and tune radar.	
☐ Check running lights.	
☐ Test depth sounder.	
Conduct comm checks:	
- Collade Collin Clicons	
Hull number Date	
Coxswain Signature	

# RHIB Engineering Pre-Operational Procedures

ENGINE CHECKS
Check engine lube oil level. Add lube oil as necessary.
Check oil drain plug for tightness.
Check engine mount bolts for tightness.
Check engine coolant expansion tank level. Add as required. Note: Proper level is 1" from cap.
Test cooling system antifreeze mixture. NOTE: Accomplish weekly or when cooling water has been added or cooling system has been refilled. Using a 50/50 mixture.
Strip fuel tank. NOTE: Ensure use of proper container. Dispose of IAW current HAZMAT guidelines.
Drain fuel/water filter separator bowl. NOTE: Accomplish daily when boat is in operation.
Open fuel supply and return valves. Ensure the three-way fuel return valve is set to return fuel to both tanks.
Check all belts, hoses and clamps.
Inspect engine for oil leaks.
Check fuel gauge on console; take on fuel as necessary.
Apply grease to drive shaft bearings (do not over grease)
<pre>Apply grease to jet drive bearing and lever (do not over grease).</pre>
AUXILIARY CHECKS
Check bucket hydraulic fluid level (located inside console).  Add as necessary.
Check steering oil level (located under helm on console). Add as necessary.
Clean and inspect seawater strainer. NOTE: Accomplish weekly when boat is in water.
Open S/W strainer inlet and outlet valves.

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Check battery voltages on consoles.
Check bilge plug (ensure it is firmly secured).
Other Checks
Ensure sponson is inflated to 3 psi.
Ensure extra coolant is onboard.
Ensure extra oil is onboard.
Completed PMS situational "R" checks.
Hull Number Date
Boat Engineer Signature

# RHIB Trailer Check List

# 1. Launch/Recovery:

- a. <u>Pre-Op Checks:</u> Inspect trailer for mechanical and structural defects. Accomplish before each use.
- b. <a href="Post-Op Checks">Post-Op Checks</a>: Conduct freshwater wash-down of trailer.

# RHIB Engineering Securing Checklist

Idle engines for at least two (2) minutes before lifting RHIB out of the water.
Ensure all oil levels are filled to the marks.
Ensure main engine and auxiliary power switches are placed in the off position. All power toggle switches are in the off position on the power panel.
Check oil level in hydraulic reservoir.
Check oil level in jet pump bearing sight glass.
Conduct fresh water wash-down of craft, exterior components, and trailer.
Spray CRC or WD-40 on all engine and drive metal parts.
Inspect fiberglass hull and fittings.
Inspect inflatable collar.
Ensure all applicable reports are completed and submitted for review.
Boat Hull Number: Date:
Chief Engineer:
Boat Coxswain:
Reviewed by:

# RHIB Securing Checklist

Engineering checklist complete
Mooring lines set or craft secured to trailer.
Navigation lights off.
Radar in Standby/Off mode with transmit sweep off.
Radio off.
Depth sounder off.
Trash removed and interior cleaned.
Weapons turned-in and secured.
High value items stowed.
Navigation equipment stowed.
Fog engine with oil, CRC, CLP or WD40.
Check shaft.
Check out drive and fog with oil, CLP, CRC or WD40.
Check bilge level and dewater if necessary.
Main power-switch off.
Bilge pumps set to auto/off.
All hatches secured.
Craft wash down complete (includes trailer).
Both main switches off.
Ignition switches always off.
Post-operational report complete.
Boat Hull Number: Date:
POIC Signature:

## Passenger Brief

- 1. <u>Purpose</u>. To familiarize passengers with characteristics and safety procedures while embarked in a RHIB.
- 2. <u>Procedure</u>. Prior to getting underway with passengers, the following information shall be provided to RHIB passengers.
  - a. Boat description/characteristics.
- b. Required safety equipment (inherently buoyant lifejacket with whistle, helmet-if required for operations, strobe light/chemical light-night operations).
- c. Location of craft safety equipment (life ring, bow hook, fire extinguisher, first aid kit, flare kit).
- d. Plan of intended movement (general course and speed, maneuvers).
- e. Craft loading restrictions (crew size, maximum passenger capacity, maximum cargo capacity).
- f. Weather/sea conditions (maximum allowable sea criteria, current weather forecast, effects of sea conditions on riders, "Hold on with 2 hands, keep knees flexed").
- g. Known risks and passenger response in the case of high speed operations, rapid turns, close in maneuvers, quick stop, shallow water operations, hazards to navigation, engine casualty, man overboard, swamping, and personnel injury.

# Weapons and Ammunition

- 1. <u>Purpose</u>. To outline procedures for RHIB crews when embarkation of weapons are authorized on board.
- 2. <u>Background</u>. Due to the extreme danger of live-fire shooting and the added hazard of shooting from an unstable platform, a great deal of planning and attention to detail is required when firing from a RHIB. Weapons safety and security are important issues on every operation whether it is training or combat. No operation will start before the RHIB boat officer/coxswain have ensured that weapons safety has been thoroughly briefed, understood by all embarked personnel and all weapons have been inspected and properly stowed. Unless otherwise directed by competent authority, the boat officer is responsible for every weapon from the time it enters the boat until it leaves the RHIB. If there is any doubt about safety or security, the boat officer or competent authority shall terminate the operation until the issue is resolved.
- 3. <u>Weapons load-out</u>. Weapons type will be determined by the mission. Typical load-outs consist of the following equipment:
  - a. Various side arms
  - b. Shotqun
  - c. M-14 carbine
  - d. M-79 grenade launcher
  - e. M-60 machine gun
  - f. Various pyrotechnics

# 4. Stowage procedures

a. <u>Weapons stowage</u>. Unless otherwise directed by competent authority, the RHIB boat officer or senior gunner's mate shall inspect all weapons to ensure that the chamber is clear prior to stowing. When boats are underway, handguns and ammunition pouches

will be kept on the individual to whom they are issued. Large weapons, when not in use, should be attached to the RHIB with a snap link or similar device to prevent lost while in use. Side arms shall be holstered and should be attached to the person by a lanyard.

- b. <u>Ammunition stowage</u>. Ammunition can be stowed on the deck of the RHIB in watertight stowage containers that are securely attached to the boat. Unused ammunition shall be returned to its storage container when not in use. RHIB with ammunition or explosives onboard shall be manned.
- 5. Weapons Firing from a RHIB. No operation will start before the boat officer or coxswain has ensured that weapons safety has been thoroughly briefed and is understood by all embarked personnel. Unless otherwise designated by competent authority, the boat officer or coxswain is responsible for the stowage and inventory of every weapon from the time it enters the boat until it leaves the boat. Each operator is responsible for the security and control of his own weapon.

#### NOTE

ALL PERSONNEL IN THE RHIB WILL WEAR FLAK JACKETS OR BODY ARMOR DURING ALL WEAPON FIRING EVOLUTIONS INVOLVING LIVE AMMUNITION.

#### 6. Responsibilities

- a. <u>Coxswain</u>. The coxswain will ensure that the RHIB does not go down range or into a potentially hazardous area. He shall warn all shooters of any sudden boat movements or course changes.
- b. <u>Gunners</u>. Strictly adhere to designated fields of fire and be totally familiar with the weapon in use. Be constantly aware of anything that could possibly enter the field of fire. Only fire when the target is in sights. Ensure the weapon is clear and safe when not firing.
- 7. <u>Clearing of Live Ammunition</u>. All personnel shall be thoroughly familiar with procedures outlined in reference (h).

8. Training for Live Fire. Training should be conducted methodically, escalating from dry fire to blank rounds to live rounds stationary before attempting maneuvers. Day evolutions should be conducted prior to any night evolutions; rehearsals are the essence of success. In maneuvering and formations, the degree of difficulty is complicated by abruptly changing circumstances.

# a. Handling

- (1) Weapons will remain clear of all rounds and on SAFE until permission is given by competent authority to lock and load.
  - (2) Never place weapon barrels on the deck unattended.
  - (3) Keep weapons pointed down range and elevated.
- (4) Ensure all personnel on board are behind the firing line.
- (5) Machine guns will be properly secured with a lanyard to the RHIB in the event of a mount failure.

#### b. Firing

- (1) Ensure weapon is clear and safe.
- (2) Ensure weapon is properly mounted.
- (3) Upon competent authority or the boat officer/coxswain's command, load and ready weapon, keeping it on safe and pointed down range.
- (4) Constantly be aware of fields of fire and boat crew positions.
- (5) Personnel will stay on the firing line until "Cease fire" is given.

(6) When "cease fire" is given, clear and safe the weapon. If dark, use a flashlight to verify weapon is clear.

# NOTE Anyone can call "cease fire!"

- 9. <u>Communications Plan</u>. Communications will be maintained between every waterborne boat and higher authority. A comprehensive communications plan must be developed and briefed. The plan should contain the following information:
  - a. Radios
    - (1) Primary
    - (2) Secondary
  - b. Frequencies
    - (1) Primary
    - (2) Secondary
    - (3) Administrative
    - (4) Emergency (MEDEVAC, etc.)
  - c. Call Signs
    - (1) All boats
    - (2) ARG ships
- 10. <u>Fields of Fire</u>. Fields of fire are directly affected by formation and situation. Safety brief of each RHIB field of fire is required. All crewmembers must know, at all times, the positions of friendly forces and craft operating in the vicinity.

# Securing RHIB

- 1. <u>Purpose</u>. To establish standard procedures for securing RHIB.
- 2. <u>Procedures</u>. The following procedures must be followed to ensure safety of the craft:
- a. RHIB to Trailer. In order to secure the RHIB to the trailer, ensure it is fully on the trailer and properly centered. Using cargo straps secure craft to trailer by using all installed craft tie down points. Tighten the cargo strap as snug as possible. If installed, properly secure the trailer winch cable to the forward pad-eye.
- b. <u>Trailer to Deck</u>. Gripe the trailer to the deck using six chains and gripes. Using a cross pattern with two chains aft, secure the trailer rear axle to deck fittings. Using two chains forward, gripe from the trailer frame to the deck, and then secure one chain from the forward axle to the deck forward. Secure the last chain to the rear axle and gripe to the deck aft.

#### CAUTION

The 10 and 11 meter RHIB can be hoisted with trailer attached, providing the boat is properly attached to trailer and there is no cargo in the boat. The trailer weighs 4400 lbs.

## Shipboard Launch and Recovery

- 1. <u>Purpose</u>. To establish safe procedures for launching and recovering RHIB while embarked on ships.
- 2. <u>Introduction</u>. The 10 Meter RHIB can be lowered and hoisted using a four-leg sling with the B&A crane that is certified for a load greater than the combined boat and cargo weight. Each sling leg and the lifting ring have been tested at 100 percent over normal working load prior to installation in the boat. The boat lifting fittings are also tested to 50 percent overload with the boat suspended for 10 minutes. These tests confirm that fittings and slings were properly constructed. Constantly check these areas for wear and signs of stress.
- 3. <u>Lifting Sling</u>. The lifting slings are made of synthetic fiber. <u>Weight test must be performed at intervals not to exceed 18 months</u>. The slings maintain the boat in a slight bow up attitude (3 degrees) during hoisting.

#### NOTE

Ensure lifting slings are kept clean. Dust and abrasion may damage the fabric. If dirty, the sling should be washed with a mild solution of soap and water.

4. <u>Lowering and Hoisting</u>. The RHIB can be lowered or hoisted while the ship is either making headway (ship speed no greater than 5 knots) or dead in the water depending on the mission requirements. A positive locking hook release is recommended for lowering and hoisting operations.

#### CAUTION

NO MORE THAN THREE PERSONNEL WILL BE ON THE CRAFT DURING HOISTING AND LOWERING OPERATIONS (3 CREWMEMBERS AND GEAR, NOT TO EXCEED HOISTING WEIGHT).

a. <u>Lowering</u>. To prevent damage to the console, the slings must be tended until taut.

- (1) Conduct all pre-operational checks in accordance with enclosure (2) and conduct comm checks. Brief the ship's crew along with the boat crew on voice commands and signals.
- (2) Ensure  $\underline{\text{all}}$  personnel are wearing proper safety equipment to include, as a minimum, safety helmets and life jackets.
- (3) Locate hoisting sling at a position approximately over the boat's center of gravity and position the lifting ring.
- (4) Attach sling legs to their respective connection points on the deck; <u>labels sewn to each leg identify the correct</u> attachment point. Ensure the slings are secure.

#### WARNING

Use only safety shackles (with cotter pins) to attach the slings to the boat.

- (5) Connect the locking release hook to the lifting ring and latch.
- (6) Attach sea painter to the bow bit or forward cleat and lead forward.
- (7) Attach steadying lines to bow bitt and inboard transom bitt.
- (8) Raise the sling until taut and make a second check on the integrity of the sling to boat attachments.
- (9) Continue raising the boat to clear all obstructions and train to the side.
- (10) Once at the rail, the crew mans the boat with lifejackets and helmets on.
- (11) The crew, mans RHIB with the engineer aft, coxswain amidships, and bow hook forward. Begin lowering.
- (12) Start the engines when RHIB becomes waterborne and ensure the engine run smoothly.

(13) Continue lowering the hook. The POIC will give the command to trip the release.

#### CAUTION

The 10 and 11 meter RHIB do not have a transmission. When engines are started, water jet flow immediately affects the motion of the boat. The boat coxswain should adjust the buckets as necessary to maintain a safe position.

(14) When directed, the engineer releases the aft steadying lines and the bow hook releases the forward steadying lines.

#### WARNING

Never release forward lines before releasing aft lines.

- (15) When directed, release sea painter.
- (16) Once underway, raise the ensign and antennas as applicable.
- (17) Make an approach alongside the ship to pickup passengers and equipment, as applicable.
- (18) Clear the side, proceed on assigned mission as directed.

#### b. Hoisting

(1) Ensure  $\underline{\text{all}}$  personnel are wearing proper safety equipment.

## WARNING

Except in an emergency, do not exceed the 10 meter RHIB hoisting weight of 18000 lb.; 11 Meter RHIB hoisting weight of 16,500 lb.

(2) Ensure the sling is properly secured to each attachment point before coming along side. <u>Use only safety</u> shackles with cotter pins installed to attach the slings to the boat.

#### CAUTION

To prevent damage to the console, slings must be tended until taut.

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- (3) Lower ensign and antennas as applicable.
- (4) Make an approach alongside the ship to off-load passengers and equipment as applicable.
- (5) When directed, proceed alongside and attach sea painter.
- (7) Attach forward and aft steadying lines as directed by ships crew.

#### WARNING

NEVER connect aft steadying lines before connecting forward steadying lines.

- (8) Breast out the craft to a position directly below the lifting hook of the crane.
- (9) Attach the craft's sling ring into the Raymond Release or quick release hook and latch into the locked position.
- (10) Commence hoisting the craft and secure the engine(s). Hold the craft steady with steadying lines.
  - (11) Stop hoisting when the craft is at the rail.
  - (12) Disembark the crew when directed by POIC.
  - (13) Train out and raise the craft.
  - (14) Lower the craft onto the trailer.
  - (15) Gripe down the craft and trailer.

# Towing Procedures

- 1. Purpose. To establish guidelines for RHIB towing.
- 2. <u>Discussion</u>. The circumstances under which a RHIB may have to tow or be towed are so varied that no definite rule can be established. However, for towing operations in open-ocean or unrestricted harbor, a stern-to-bow tow should be used. For towing during restricted maneuvering or to a pier, a side-by-side tow should be used.

## 3. Duties/Responsibilities

# a. Coxswain:

- (1) Prior to underway, ensure each crewmember understands his duties and responsibilities.
- (2) Maintain positive control of towing evolution, assuming navigation and communication responsibilities as required.
  - (3) Maintain course/speed as directed.

#### 4. Procedures

#### WARNING

SECURE TOWING LINES ONLY TO MOORING CLEATS OR TOWING POSTS.

NEVER SECURE TOWING LINES TO DECK HARDWARE NOT INTENDED FOR

TOWING. FAILURE TO COMPLY COULD RESULT IN DAMAGE TO THE CRAFT

OR PERSONNEL INJURY.

#### WARNING

TOWING PROCEDURES CAN BE VERY HAZARDOUS, PARTICULARLY IN ADVERSE WEATHER. TO PREVENT INJURY, ALL PERSONNEL ENGAGED IN TOWING EVOLUTIONS MUST WEAR LIFE JACKETS AND HEAD PROTECTION.

a. <u>Towing Astern</u>. For towing astern, the boat to be towed will attach its anchor line to its towing pendant (which is attached to the boat's bow eye). The anchor line will then be passed to the towing boat. The towing boat crew will attach the

anchor line to the aft end of the boat. This can either be attached to a towing bridle with a shackle or to the installed tow post. When the line is secure, the towing boat will slowly take tension on it and gradually increase speed to desired towing speed.

#### CAUTION

CARE SHOULD BE TAKEN WHEN COMING UP TO SPEED TO PREVENT CAVITATION OF THE TOWING BOAT'S JETS. ONCE CAVITATION OCCURS, NO FURTHER GAIN IN SPEED WILL BE ACCOMPLISHED AND THE THROTTLES SHOULD BE REDUCED TO PREVENT DAMAGE TO THE DRIVE SYSTEM OF THE TOWING CRAFT.

b. Towing Alongside. For towing along side, the towing boat will come alongside, and the boats will be secured by mooring lines from bow bitt-to-bow bitt and then transom bitt-to-transom bitt. A spring line from the bow of the towing boat to the inboard transom of the towed boat will be used. Prior to towing, the load in the boat to be towed should be reduced as much as possible. Preferably, only two crewmembers will be left in the towed boat to tend lines.

# Refueling

- 1.  $\underline{\text{Purpose}}$ . To establish a means of safely refueling the RHIB from pier side and surface vessels. The RHIB is capable of refueling via a standard 1 1/2"hose.
- 2. <u>Fuel</u>. The preferred fuel is diesel fuel marine (DFM), or #2 diesel. Maximum capacity is 246 gallons <u>unless absolutely</u> necessary (in case of emergency), do not use JP-5 in the 10 and 11 meter RHIB.

# 3. Shipboard stowage refueling procedures

- a. If possible, fuel a boat in the daytime and while it is in the water with its engines stopped. Fueling a boat at night requires the permission of the Commanding Officer.
- b. If it is necessary to fuel a boat in its shipboard stowage, provide adequate fire fighting equipment at the scene.
  - c. Do not fuel boats with passengers on board.
  - d. Always keep gas cap in place when not fueling.
  - e. Only personnel specifically authorized by the ship's Chief Engineer Officer shall fuel small boats.

#### WARNING

FUEL ON THE DECK IS A POTENTIAL FIRE HAZARD, AND CAN CAUSE PERSONNEL INJURY.

- 4. <u>Pier side procedure</u>. Pier side refueling procedure should be used as outlined below:
- a. Ensure all personnel aboard are wearing proper safety equipment to include safety glasses or goggles.
  - b. Secure main engines and all battery barrel switches.
- c. Secure grounding strap to craft. (This step may or may not be possible. At most civilian fuel docks there are no grounding

facilities available. When refueling from trucks a grounding strap is usually required). The grounding strap should be attached to any grounded metal object that is part of the bonding system onboard.

- d. Look at fuel gauge to determine how much fuel is required.
- e. Receive fuel hose from fuel pier or supplying vehicle.
- f. When ready, the boat officer will inspect the fuel for cleanliness, insert nozzle assembly into the fuel tank and commence refueling.
- g. The boat officer will visually monitor the fuel level to prevent spillage.

#### WARNING

FUEL ON THE DECK IS A POTENTIAL FIRE HAZARD, AND CAN CAUSE PERSONNEL INJURY.

- h. When the tank is full, secure the fuel and notify the fuel pier or supplying vehicle to retrieve the hose.
  - i. Log gallons and type of fuel taken onboard per tank.
  - j. Release ground wire.
- k. When refueling is completed and fuel caps secured, start the engines and continue underway.

# Report of Acceptance of Custody of Force Protection RHIB Letter 4780 SER N4/ FROM: Commanding Officer, USS \_\_\_\_\_ Commander, Amphibious Group THREE (N4/N45) TO: Subj: REPORT OF ACCEPTANCE OF CUSTODY OF FORCE PROTECTION RHIB (SER NO. \_\_\_\_\_) (a) COMPHIBGRUTHREEINST 3120.6 Ref: Encl: (1) Report Of Craft Material Inspection 1. Having conducted an inspection per enclosure (1), custody of RHIB Ser No. is accepted. 2. Findings That no material discrepancies exist of a magnitude which would preclude the boat from carrying out its assigned primary mission. The correction of any noted items listed in enclosure (1) is necessary, and within ship's force capability, to restore a condition of material readiness required to permit maximum flexibility of operations within assigned missions. -OR-That certain material/safety deficiencies exist which significantly degrade required operational capabilities associated with the primary mission area of the boat. This finding is based on the following item(s), which are beyond ship's force capability. Discrepancy JSN

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In addition, the correction of noted items listed in enclosure (1) is necessary, and within ship's force capability, to restore a condition of material readiness required to permit maximum flexibility of operations within assigned missions.

b. Ensure the performance of routine maintenance is adequate and effective. This finding is based upon the general observation of the material condition of the craft and its installed equipment.

-OR-

That performance of routine maintenance is in the following areas is neither adequate nor effective: ( $\underline{\text{EXAMPLES BY AREA WITH}}$  SPECIFIC SYSTEMS CITED)

This finding is based upon the general observation of the material condition of the craft and its installed equipment.

\_\_\_\_\_ REQ NO. \_\_\_\_\_

c. The deployment pack-up kit contains routine maintenance parts and some emergent repair parts. The ship is responsible for ordering and replacing any parts used from the pack-up kit to restore it to a full condition of readiness. The following items listed in enclosure (10) of ref (a) are missing/ordered as follows:

ITEMITEM	REQ NO.	
= Print name and rate:_	Signature	
Copy to: COMPHIBRON SHIP NAME		

REPORT OF CRAFT MATERIAL INSPECTION

SERVICE CRAFT NO.

	ITEM	Z	SATISFACTORY	NAL	UNSATISFACTORY	INSPECTED	REMARKS
		ХІЭНУS	SILVS	MARGINAL	UNSAT	II LON	
	OUTSIDE HULL ABOVE WATERLINE						
	OUTSIDE HULL BELOW WATERLINE						
	INSIDE HULL AND FRAMING						
	FUEL TANKS						
	DECKS AND FLATS						
	HATCHES						
l⊣	MAST AND RIGGING						
STRUCTURAL	FENDERING						
员	BITTS/CHOCKS/CLEATS						
F	CONSOLE STEERING						
<u>ا</u> ک	EXTERIOR PRESERVATION						
RI	INTERIOR PRESERVATION						
🛱	HOISTING PADS						
Ω	ZINCS						
	HULL AUXILLIARIES						
	PROPULSION ENGINES						
-	UNDERWATER MACHINERY						
	SHAFT/IMPELLER/BEARING						
ICAL	HOSES & FITTINGS						
	PP-JET UNIT DUCT ASSEMBLY						
A	CONTROL UNITS						
보	STEERING UNIT						
MECHAN	STATOR AND CONTROL SURFACE						
l ∐	EXHAUST SYSTEM						
	STRAINERS						
	FUEL GAUGES						

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	OIL PRESS. ENGINES						
	OIL TEMP						
	WATER TEMP						
	TACHOMETER						
	BILGE PUMP						
	ITEM	SAFETY	SATISFACTORY	MARGINAL	UNSATISFACTORY	NOT INSPECTED	REMARKS
	CABLE AND WIRING						
	EXTERIOR LIGHTING						
	BATTERIES/CABLES						
	SPOTLIGHT						
니	AMMETERS						
K							
<u> </u>							
ELECTRICAL							
国							
	STEERING CONTROL						
Ή	COMPASS						
NAVIGATIO N	PROPULSION CONTROLS						
G Z	NAV LIGHTING						
Ĭ,	FURUNO RADAR/GPS/DEPTH FINDER						
$\sum$							
NZ							

					Ι.,		
	ITEM		≽ı		ORI	Ε̈́Θ	
			OR		\CT	INSPECTED	REMARKS
			ACT	AL	SF	SPI	
		ΤŢ	SF	NH	TI	Z	
		SAFETY	SATISFACTORY	MARGINAL	UNSATISFACTORY	NOT	
		Ŋ	Ŋ	Σ	n	Z	
	ANCHOR AND ANCHOR LINE 25 FATHOMS WITH 1/4" INCH CHAIN						
	BUCKET (1)						
	LIFE RING (1)						
	FIRST AID KIT (1)						
	FENDERS (4)						
Į∑	GRAPNEL HOOK (1)						
EQUIPMENT	BOAT HOOK 6' TO 8' FEET (1)						
D	MOORING LINES (2)						
Q	FIRE EXTINGUISHER, CO2 PORTABLE (1)						
	BATTLE LANTERNS (1)						
H	HORN, FOG						
A	COMPASS						
BOAT	OARS (4)						
	BELL						
	LIFTING SLING (1) - WITHIN TEST PERIODICITY						
	FOOT PUMPS (2)						
	FLAGSTAFF AND FLAG (1)						

#### Force Protection Boat Pack-Up Kit

- 1. <u>Purpose</u>. To establish responsibility, accountability, and procedural guidelines for RHIB spare parts contained in deployment PACK-up Kits.
- 2. <u>Discussion</u>. Having a spare parts inventory of high usage items on hand is an essential element of mission readiness. A RHIB pack-up kit containing high usage items will be delivered with each RHIB. The ship will be responsible for the proper stowage and care of all spare parts contained within their assigned RHIB pack-up kit.

## 3. Duties/Responsibilities

## a. COMPHIBGRU THREE:

- (1) N45 and N451 are designated as the RHIB spare parts manager. They will ensure a sufficient quantity of high usage spare parts are contained within each pack-up kit (PUK). A ship assigned a RHIB with PUK will assume sub-custody of the all RHIB spare parts delivered from COMPHIBGRU THREE or purchased by the ship, for the 10/11 meter RHIB. Additional duties and responsibilities include:
- (a) Conduct a semi-annual inventory and maintain an accurate inventory of all RHIB spare parts on hand.
- (b) Coordinate with COMPHIBGRU THREE Supply Officer (N41), the purchase of additional RHIB spare parts.
- (c) Ensure all RHIB spare parts are placed in a secure area.
- (d) Conduct an inventory of spare parts/pack-up kit with a ship's supply department representative (E-6 or above) prior to ship assuming sub-custody.

- (e) Conduct an inventory of spare part/pack-up kit items with a ship's supply department representative, prior to assuming custody of spare parts from returning ship.
- (2) The Supply Officer, N41, will process and submit RHIB spare parts order request.

# b. Ship assigned PUK:

# (1) Supply Department:

- (a) Conduct an inventory with a N45 rep all spare parts prior to assuming sub-custody.
- (b) The supply officer shall take custody and assume custodial duties of all RHIB spare parts. The supply officer shall ensure RHIB spare parts are secured in a space that only supply department has access.
- (c) Maintain positive control of RHIB spare parts and submit a mid-deployment inventory report to COMPHIBGRU THREE.
- (d) Process and order any spare parts damaged by ship or taken from the spare parts inventory/pack-up for RHIB repairs.
- (e) Maintain custody of old alternators, starters, fuel injectors, aft cooler, turbos that have been replaced, for turnover to COMPHIBGRU THREE.
- (f) Conduct an inventory, with N45 rep, of all spare parts prior to returning custody of the PUK back to COMPHIBGRU THREE.
- (g) Survey or order any spare part that is missing from inventory prior to turnover.

#### 4. PUK Inventory:

a. COMPHIBGRU THREE's goal is to have a sufficient quantity of spare parts for each RHIB in their pool of force protection boats. PUK load outs will vary in quantity and equipment, however the basis PUK load out is listed below. Any differences from the basic load out and the actual load out will be annotated during PUK inventory, prior to receipt by deploying ship.

	QTY	PART NUMBER	DISCRIPTION	PRICE	TOTAL	MANUFACTOR
1	1	3922935	MAINFOLD	1,362.74	1,362.74	CUMMINGS
2	2	3907242	THERMOSTATS	17.09	34.18	CUMMINGS
3	6	3913735	INJECTORS	118.95	713.7	CUMMINGS
4	3	3916852	WATER PUMP KIT	105.07	315.21	CUMMINGS
5	1	3913739	AFTER COOLER	1,942.07	1,942.07	CUMMINGS
6	1	3802203	TURBO	1,767.43	1,767.43	CUMMINGS
7	3	3916300	TURBO GASKET	18.83	56.49	CUMMINGS
8	4	3918552	BELT	27.72	110.88	CUMMINGS
9	2	3802061	WATER PUMP FRESH	175.51	351.02	CUMMINGS
10	8	3315116	WATER FILTERS	9.58	76.64	CUMMINGS
11	2	3800750	GASKET SET UPPER	235.21	470.42	CUMMINGS
12	2	3800558	GASKET SET LOWER	246.99	483.58	CUMMINGS
13	10	3903640	FUEL FILTER	7.62	76.2	CUMMINGS
14	10	3825970	OIL FILTER	31.39	313.9	CUMMINGS
15	4	3912966	AIR FILTER	45.05	180.2	CUMMINGS
16	2	JNODAEV	MAIN BEARING	329.38	658.76	HAMILTON
17	2	61528	MECHANICAL SEAL JET	613.01	1,226.20	HAMILTON
18	4	104617	SEAL SLEEVE	85.98	343.92	HAMILTON
19	6	JWKZ2ADF	SEAL SLEEVE MAIN	41.51	249.06	HAMILTON
20	6	102185	ANODE	11.39	68.34	HAMILTON
21	6	104621	BEARING SLEEVE	56.45	338.71	HAMILTON
22	6	103359	ANODE	10.21	61.21	HAMILTON
23	6	HMHRADQ	O-RING	10.67	64.02	HAMILTON
24	6	HMHRAAS	O-RING	0.54	3.24	HAMILTON
25	6	HMHRAAW	O-RING	0.81	4.86	HAMILTON
26	6	104916	O-RING	12.11	72.66	HAMILTON
27	6	HMHRABV	O-RING	3.05	18.3	HAMILTON
28	6	104634	ANODE	11.69	70.14	HAMILTON
29	2	104264	SEAL SLEEVE JET	60.46	120.92	HAMILTON
30	1	104263	HEADER RING JET	369.96	369.96	HAMILTON
31	4	3906139	FRONT OIL SEAL	54.12	216.48	CUMMINGS
32	4	BELACIM	ALTERNATOR	843.71	5062.26	ALL COUNTY
33	6	DELACIM	STARTER	950	5,700.00	ALL COUNTY
34	1	3913319	SUPPORT	58.96	58.96	CUMMINGS
35	2	3914854	TENSIONER	106.21	212.42	CUMMINGS
36	2	3909410	REAR OIL SEAL	67.78	135.56	CUMMINGS
37	2	3906795	TRANSFER PUMP	138.17	276.34	CUMMINGS
38	2	3914304	GASKET SET LIFT PUMP	1.42	2.84	CUMMINGS
39	2	3907022	CAP	5.98	11.96	CUMMINGS

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40	4	67185	HOSE	11.71	46.84	CUMMINGS
41	4	110980	HOSE	11.71	46.84	CUMMINGS
42	4	3026395	HOSE	32.96	131.84	CUMMINGS
43	4	555538	HOSE	16.38	65.52	CUMMINGS
44	4	3912177	HOSE	9.76	39.04	CUMMINGS
45	8	176743	HOSE	32.85	262.88	CUMMINGS
46	4	3905449	GASKET SET	14.52	58.08	CUMMINGS
47	2	14A-3700	PUMP BILGE	232.31	464.62	RULE
48	1	SPARERT	KIT REPAIR TUBE	580.01	580.01	ALL COUNTY
49	2	05-70-3115	O/P GAUGE	65.41	130.82	MURPHY
50	2	10-70-6563	TEMP GAUGE	71.52	143.04	MURPHY
51	2	ACT-30	TACH/HR METER	210.36	420.72	MURPHY
52	2	05-70-3111	TURBO GAUGE	65.41	130.82	MURPHY
56	2		ISOLATORS	380.11	780.22	SEAWIDE
57	2		REGULATORS	280.11	2,240.88	BOLDER
58	1	MP7906	MAG PICK UP	68.44	68.44	MURPHY
59	1	SEA STAR	HELM PUMP	420.34	420.34	SEA STAR
60	1		KIT GLASS	550	550	ALL COUNTY
61	1	10-70-6000	TL7	28.91	28.91	MURPHY
62	1	GX-1265S	RADIO	255.31	255.31	STANDARD
63	2	17463	BELT			ALL COUNTY

#### Material Maintenance

- 1. <u>Purpose</u>. To establish responsibility, accountability and procedural guidelines for the material maintenance of RHIB's
- 2. <u>Discussion</u>. While CPG-3 RHIB's are assigned custody to ships, Deck and Engineering departments will be responsible for all maintenance and repairs to include submitting work repairs for discrepancies outside of ships force capabilities.

# Duties and responsibilities

#### 3. COMPHIBGRU THREE.

a. Provide Deck and Engineer department with technical manuals, Maintenance Index Page and Maintenance Requirement Cards for RHIB's

#### 4. Ship's Deck Department:

- a. Establish material maintenance program for every quarter the RHIB's are embarked.
- b. Turn in all maintenance records to COMPHIBGRU THREE upon return from deployment for review.
  - c. Include maintenance in the ships 3M SPOT CHECK program.
- d. Submit work request for hull discrepancies outside of ships force capabilities.

# 5. Ship's Engineering Department:

- a. Establish material maintenance program for every quarter the RHIB's are embarked.
- b. Turn in all maintenance records to COMPHIBGRU THREE up return from deployment for review.
  - c. Include maintenance in the 3M SPOT CHECK program.

- d. Submit work request for engineering discrepancies outside of ships force capabilities.
- e. Maintain a machinery history log for assigned COMPHIBGRU Three RHIB's.